

01.0 EXPLORING TECHNOLOGY

Prerequisite: None

Exploring Technology is designed to introduce students to basic technological principles, processes, and skills such as design and problem solving, team decision making, information gathering, and safety. A systems model of communication, manufacturing, power/energy and transportation and construction is presented. Students are exposed to sketching, technical drawing, screen printing, logo and poster development, building of model rockets and bridges, experimentation with computer-assisted graphics, computer-aided design software, electronic devices, and video production. This program is designed to develop an appreciation of technical fields and occupations while learning about skills essential to these systems.

PROGRAM TASK LISTING EFFECTIVE DATE: June 30, 1995

PROGRAM AREA: Technology Education

PROGRAM TITLE: Exploring Technology

IDAHO CODE NUMBER: TE 1901

- 01.01 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.
- 01.02 Exhibit positive human relations and leadership skills (standard leadership skills task list).
- 01.03 Demonstrate computer application and literacy.
- 01.04 Apply basic skills in communications, mathematics and science appropriate to technological content and learning activities.
- 01.05 Utilize the systems approach in technology.
- 01.06 Demonstrate technological literacy.
- 01.07 Discuss individual interests and aptitudes as they relate to a career.
- 01.08 Demonstrate the use of technological systems in processing resources.
- 01.09 Discuss the outcomes of technology on society and the environment.

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01.01 DEMONSTRATE PROPER AND SAFE PROCEDURES WHILE WORKING WITH TECHNOLOGICAL TOOLS, APPARATUS, EQUIPMENT, SYSTEMS, AND MATERIALS--

The student will be able to:

1. Follow laboratory safety rules and procedures.
2. Demonstrate good housekeeping within total laboratory.
3. Conduct laboratory activities and equipment operations in a safe manner.
4. Exercise care and respect for all tools, equipment, and materials.
5. Identify color-coding safety standards.
6. Safely use hand tools and power equipment.
7. Explain fire prevention and safety precautions and practices for extinguishing fires.
8. Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

01.02 EXHIBIT POSITIVE HUMAN RELATIONS AND LEADERSHIP SKILLS (STANDARD LEADERSHIP SKILLS TASK LIST)--

The student will be able to:

1. Work cooperatively with others.
2. Demonstrate ability to do individual and cooperative planning of an activity.

01.03 DEMONSTRATE COMPUTER APPLICATION AND LITERACY--

The student will be able to:

1. Define terms related to computer parts and usage.
2. List ways in which computers are used in technology.
3. Discuss advantages and disadvantages in the use of computers.
4. Demonstrate the application of a computer.

01.04 APPLY BASIC SKILLS IN COMMUNICATIONS, MATHEMATICS AND SCIENCE APPROPRIATE TO TECHNOLOGICAL CONTENT AND LEARNING ACTIVITIES-

The student will be able to:

1. Find, understand and apply information from a variety of sources, written and electronic to produce a technical report.
2. Apply proper grammar and spelling in Technology Lab assignments.
3. Properly use math and science concepts in lab activities, using all available resources.

01.05 UTILIZE THE SYSTEMS APPROACH IN TECHNOLOGY--

The student will be able to:

1. Identify and define four systems of Technology Education taught in Idaho technology Labs.
2. Complete a communications activity.
3. Take part in a manufacturing activity.
4. Take part in a construction activity.
5. Take part in a transportation assignment.
6. Define and apply Energy as it relates to Technology Education.
7. Define and apply Power as it relates to Technology Education.
8. Take part in an assignment using basic electronics/electricity theory.

01.06 DEMONSTRATE TECHNOLOGICAL LITERACY--

The student will be able to:

1. Outline major historical technological developments or events.
2. Identify recent advances in technology.
3. Explain problem-solving roles of technology.
4. Define and apply a system.
 5. Define and apply a systems model.
6. Define Technology.

01.07 DISCUSS INDIVIDUAL INTERESTS AND APTITUDES AS THEY RELATE TO A CAREER-

The student will be able to:

1. Describe individual strengths and weaknesses.
2. Discuss individual interests related to a career.
3. Identify careers within specific areas of technology.
4. Explore a career within a specific area of interest.

01.08 DEMONSTRATE THE USE OF TECHNOLOGICAL SYSTEMS IN PROCESSING RESOURCES--

The student will be able to:

1. Define the term Resource.
2. Identify four types of materials conversion.
3. Identify the types, sources and conversions of energy.
4. Identify the steps in processing information.
5. Construct a product using the materials conversion processes.
6. Construct a product that converts energy.
7. Use a computer to process information.

01.09 DISCUSS THE OUTCOMES OF TECHNOLOGY ON SOCIETY AND THE ENVIRONMENT--

The student will be able to:

1. Discuss the outcomes of technology, now and in the future.
2. Discuss the impacts of technology on work, job opportunities, and careers.
3. Discuss how technology can solve and/or create problems.
4. Discuss expected and unexpected outcomes of technology.
5. Discuss desired and undesired outcomes of technology.